

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Dr. Andrey E. Yakshin, et al.

Examiner:

Serial No:

10/754,151

**Group Art Unit:** 

Filed:

01/09/04

Date:

March 1, 2004

For:

"PROCESSES AND DEVICE FOR THE DEPOSITION OF FILMS ON

SUBSTRATES"

Commissioner for Patents Alexandria, VA 22313-1450

## **CERTIFICATE OF MAILING**

Sir:

The undersigned hereby certifies that the attached **INFORMATION DISCLOSURE STATEMENT, PTO-1449 FORM, AND 1 REFERENCE** were mailed to the Commissioner for Patents, Alexandria VA 22313-1450, with sufficient first-class postage, no special handling, on **March 1, 2004,** before 5:00 PM, thereby ensuring that such document(s) will be in the hands of the U.S. Postal Service by the close of business this day.

The Commissioner is hereby authorized to charge any fees which might be required or credit any overpayment of fees with regard to the attached document(s) to Account No. 08-3150.

Respectfully submitted,

**HUDAK, SHUNK & FARINE CO. LPA** 

Daniel J. Hudak, Jr.

Registration No. 47,669

2020 Front Street, Suite 307 Cuyahoga Falls, OH 44221 (330) 535-2220

Attorney Docket No.: FMW-BL (CZ 0100)

Enclosures: Return

Return Postcard Certificate of Mailing

Information Disclosure Statement

PTO-1449 Form 1 Reference

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

Dr. Andrey E. Yakshin, et al.

Examiner:

କ୍ଷ୍ମerial No:

10/754,151

Group Art Unit:

Hiled:

01/09/04

Date:

March 1, 2004

For:

"PROCESSES AND DEVICE FOR THE DEPOSITION OF FILMS ON

SUBSTRATES"

Commissioner for Patents Alexandria, VA 22313-1450

# INFORMATION DISCLOSURE STATEMENT

Sir:

This invention relates to improved current deposition processes and devices for the fabrication of multilayer systems to better control the energy contribution at different stages of the deposition. This is achieved by depositing films by sputtering in a scheme providing for thermalized particles. One can get thermalized particles by choosing the working gas pressure and the distance between target and substrate to result in a mean free path of particles smaller than the distance between target and substrate or to result in a product of pressure and distance being larger than 2,0 cmPa.

Applicant provides the Examiner with the following documents under rule 1.97(b) being filed prior to the first office action. As authorized and encouraged under 37 C.F.R. §1.97-1.99, applicant hereby cites as a means of complying with the duty of disclosure set forth in 37 C.F.R. §1.56, the following patents and/or documents, copies enclosed, which the Examiner should consider with respect to the above-identified United States Patent Application:

### **ARTICLE**

P. J. Martin "Ion-Based Methods for Optical Thin Film Deposition", Journal of Material Science 21 (1986) pp. 1-25 entitled,

Copies of the publications are included for the express purpose of providing the Patent and Trademark Office with an ample opportunity to evaluate the same and to arrive at an independent assessment of their materiality, if any, with regard to the examination of the application.

In reviewing the enclosed copies of the above publications, the Examiner is requested to ignore any underscoring or highlighting which may appear because such markings may or may not have any relationship to the subject matter of the aboveidentified application. The copies being submitted with this Information Disclosure Statement are the best copies available at this time.

An examination of the present application considering the above documents is requested.

Respectfully submitted,

HUDAK, SHUNK & FARINE CO. LPA

Daniel J. Hudak, Jr. Registration No. 47,669

DJHjr/dp 2020 Front Street, Suite 307 Cuyahoga Falls, OH 44221 Telephone: (330) 535-2220

Attorney Docket No.: FMW-BL

(CZ 0100)

MAR D 4 2004 BU

Sheet 1 of 1

Form PTO-1449
U.S. Department of Commerce
Patent and Trademark Office

LIST OF PRIOR ART CITED BY APPLICANT
(Use several sheets if necessary)

Atty. Docket No.:	Serial No.: 10/754,151
Applicant: Dr. Andrey E. Yakshin, et al.	
Filing Date: 01/09/04	Group:

#### U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclas s	Filing date if appropriat e
	AA						
	АВ						
•	AC						
	AD						
•	AE						
	AF						
	AG						
	АН						

#### **FOREIGN PATENT DOCUMENTS**

	Document Number	Date	Country	Class	Subclas s	Translatio <u>n</u> Yes No
AL						
AM						
AN						

# OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	P. J. Martin " <u>Ion-Based Methods for Optical Thin Film Deposition"</u> , Journal of Material Science 21 (1986) pp. 1-25 entitled,
	AS	

**EXAMINER** 

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.